



## SEQUENCE LISTING

<110> Japan Science and Technology Agency

<120> Transcriptional regulator ZHX3

<130> FS03-323PCT

<160> 35

<170> PatentIn version 3.1

<210> 1

<211> 956

<212> PRT

<213> Homo sapiens

<400> 1

Met Ala Ser Lys Arg Lys Ser Thr Thr Pro Cys Met Ile Pro Val Lys

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Thr Val Val Leu Gln Asp Ala Ser Met Glu Ala Gln Pro Ala Glu Thr

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Leu Pro Glu Gly Pro Gln Gln Asp Leu Pro Pro Glu Ala Ser Ala Ala

35 40 45

Ser Ser Glu Ala Ala Gln Asn Pro Ser Ser Thr Asp Gly Ser Thr Leu

50 55 60

Ala Asn Gly His Arg Ser Thr Leu Asp Gly Tyr Leu Tyr Ser Cys Lys

65 70 75 80

Tyr Cys Asp Phe Arg Ser His Asp Met Thr Gln Phe Val Gly His Met

85 90 95

Asn Ser Glu His Thr Asp Phe Asn Lys Asp Pro Thr Phe Val Cys Ser

100 105 110

Gly Cys Ser Phe Leu Ala Lys Thr Pro Glu Gly Leu Ser Leu His Asn

115 120 125

Ala Thr Cys His Ser Gly Glu Ala Ser Phe Val Trp Asn Val Ala Lys

130 135 140

Pro Asp Asn His Val Val Val Glu Gln Ser Ile Pro Glu Ser Thr Ser  
145 150 155 160  
Thr Pro Asp Leu Ala Gly Glu Pro Ser Ala Glu Gly Ala Asp Gly Gln  
165 170 175  
Ala Glu Ile Ile Ile Thr Lys Thr Pro Ile Met Lys Ile Met Lys Gly  
180 185 190  
Lys Ala Glu Ala Lys Lys Ile His Thr Leu Lys Glu Asn Val Pro Ser  
195 200 205  
Gln Pro Val Gly Glu Ala Leu Pro Lys Leu Ser Thr Gly Glu Met Glu  
210 215 220  
Val Arg Glu Gly Asp His Ser Phe Ile Asn Gly Ala Val Pro Val Ser  
225 230 235 240  
Gln Ala Ser Ala Ser Ser Ala Lys Asn Pro His Ala Ala Asn Gly Pro  
245 250 255  
Leu Ile Gly Thr Val Pro Val Leu Pro Ala Gly Ile Ala Gln Phe Leu  
260 265 270  
Ser Leu Gln Gln Gln Pro Pro Val His Ala Gln His His Val His Gln  
275 280 285  
Pro Leu Pro Thr Ala Lys Ala Leu Pro Lys Val Met Ile Pro Leu Ser  
290 295 300  
Ser Ile Pro Thr Tyr Asn Ala Ala Met Asp Ser Asn Ser Phe Leu Lys  
305 310 315 320  
Asn Ser Phe His Lys Phe Pro Tyr Pro Thr Lys Ala Glu Leu Cys Tyr  
325 330 335  
Leu Thr Val Val Thr Lys Tyr Pro Glu Glu Gln Leu Lys Ile Trp Phe  
340 345 350  
Thr Ala Gln Arg Leu Lys Gln Gly Ile Ser Trp Ser Pro Glu Glu Ile  
355 360 365  
Glu Asp Ala Arg Lys Lys Met Phe Asn Thr Val Ile Gln Ser Val Pro

370 375 380  
Gln Pro Thr Ile Thr Val Leu Asn Thr Pro Leu Val Ala Ser Ala Gly  
385 390 395 400  
Asn Val Gln His Leu Ile Gln Ala Ala Leu Pro Gly His Val Val Gly  
405 410 415  
Gln Pro Glu Gly Thr Gly Gly Gly Leu Leu Val Thr Gln Pro Leu Met  
420 425 430  
Ala Asn Gly Leu Gln Ala Thr Ser Ser Pro Leu Pro Leu Thr Val Thr  
435 440 445  
Ser Val Pro Lys Gln Pro Gly Val Ala Pro Ile Asn Thr Val Cys Ser  
450 455 460  
Asn Thr Thr Ser Ala Val Lys Val Val Asn Ala Ala Gln Ser Leu Leu  
465 470 475 480  
Thr Ala Cys Pro Ser Ile Thr Ser Gln Ala Phe Leu Asp Ala Ser Ile  
485 490 495  
Tyr Lys Asn Lys Lys Ser His Glu Gln Leu Ser Ala Leu Lys Gly Ser  
500 505 510  
Phe Cys Arg Asn Gln Phe Pro Gly Gln Ser Glu Val Glu His Leu Thr  
515 520 525  
Lys Val Thr Gly Leu Ser Thr Arg Glu Val Arg Lys Trp Phe Ser Asp  
530 535 540  
Arg Arg Tyr His Cys Arg Asn Leu Lys Gly Ser Arg Ala Met Ile Pro  
545 550 555 560  
Gly Asp His Ser Ser Ile Ile Ile Asp Ser Val Pro Glu Val Ser Phe  
565 570 575  
Ser Pro Ser Ser Lys Val Pro Glu Val Thr Cys Ile Pro Thr Thr Ala  
580 585 590  
Thr Leu Ala Thr His Pro Ser Ala Lys Arg Gln Ser Trp His Gln Thr  
595 600 605

Pro Asp Phe Thr Pro Thr Lys Tyr Lys Glu Arg Ala Pro Glu Gln Leu  
610 615 620  
Arg Ala Leu Glu Ser Ser Phe Ala Gln Asn Pro Leu Pro Leu Asp Glu  
625 630 635 640  
Glu Leu Asp Arg Leu Arg Ser Glu Thr Lys Met Thr Arg Arg Glu Ile  
645 650 655  
Asp Ser Trp Phe Ser Glu Arg Arg Lys Lys Val Asn Ala Glu Glu Thr  
660 665 670  
Lys Lys Ala Glu Glu Asn Ala Ser Gln Glu Glu Glu Glu Ala Ala Glu  
675 680 685  
Asp Glu Gly Gly Glu Glu Asp Leu Ala Ser Glu Leu Arg Val Ser Gly  
690 695 700  
Glu Asn Gly Ser Leu Glu Met Pro Ser Ser His Ile Leu Ala Glu Arg  
705 710 715 720  
Lys Val Ser Pro Ile Lys Ile Asn Leu Lys Asn Leu Arg Val Thr Glu  
725 730 735  
Ala Asn Gly Arg Asn Glu Ile Pro Gly Leu Gly Ala Cys Asp Pro Glu  
740 745 750  
Asp Asp Glu Ser Asn Lys Leu Ala Glu Gln Leu Pro Gly Lys Val Ser  
755 760 765  
Cys Lys Lys Thr Ala Gln Gln Arg His Leu Leu Arg Gln Leu Phe Val  
770 775 780  
Gln Thr Gln Trp Pro Ser Asn Gln Asp Tyr Asp Ser Ile Met Ala Gln  
785 790 795 800  
Thr Gly Leu Pro Arg Pro Glu Val Val Arg Trp Phe Gly Asp Ser Arg  
805 810 815  
Tyr Ala Leu Lys Asn Gly Gln Leu Lys Trp Tyr Glu Asp Tyr Lys Arg  
820 825 830  
Gly Asn Phe Pro Pro Gly Leu Leu Val Ile Ala Pro Gly Asn Arg Glu

835	840	845	
Leu Leu Gln Asp Tyr Tyr Met Thr His Lys Met Leu Tyr Glu Glu Asp			
850	855	860	
Leu Gln Asn Leu Cys Asp Lys Thr Gln Met Ser Ser Gln Gln Val Lys			
865	870	875	880
Gln Trp Phe Ala Glu Lys Met Gly Glu Glu Thr Arg Ala Val Ala Asp			
885	890	895	
Thr Gly Ser Glu Asp Gln Gly Pro Gly Thr Gly Glu Leu Thr Ala Val			
900	905	910	
His Lys Gly Met Gly Asp Thr Tyr Ser Glu Val Ser Glu Asn Ser Glu			
915	920	925	
Ser Trp Glu Pro Arg Val Pro Glu Ala Ser Ser Glu Pro Phe Asp Thr			
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Asp Asn His Val Val Val Glu Gln Ser Val Pro Glu Asn Ala Ser Ser			
35	40	45	
Ser Val Leu Ala Gly Glu Ser Thr Glu Gly Thr Glu Ile Ile Ile Thr			
50	55	60	
Lys Thr Pro Ile Met Lys Ile Met Lys Gly Lys Ala Glu Ala Lys Lys			

65                      70                      75                      80  
Ile His Met Leu Lys Glu Asn Ala Pro Thr Gln Pro Gly Gly Glu Ala  
                         85                      90                      95  
Leu Pro Lys Pro Leu Ala Gly Glu Thr Glu Gly Lys Glu Gly Asp His  
                         100                      105                      110  
Thr Phe Ile Asn Gly Ala Thr Pro Val Ser Gln Ala Ser Ala Asn Ser  
                         115                      120                      125  
Thr Lys Pro Pro His Thr Ala Asn Gly Pro Leu Ile Gly Thr Val Pro  
                         130                      135                      140  
Val Leu Pro Ala Gly Ile Ala Gln Phe Leu Ser Leu Gln Gln Pro Thr  
145                      150                      155                      160  
Val His Pro Gln His His Pro His Gln Pro Leu Pro Thr Ser Lys Ala  
                         165                      170                      175  
Leu Pro Lys Val Met Ile Pro Leu Ser Ser Ile Pro Thr Tyr Asn Ala  
                         180                      185                      190  
Ala Met Asp Ser Asn Ser Phe Leu Lys Asn Ser Phe His Lys Phe Pro  
                         195                      200                      205  
Tyr Pro Thr Lys Ala Glu Leu Cys Tyr Leu Thr Val Val Thr Lys Tyr  
                         210                      215                      220  
Pro Glu Glu Gln Leu Lys Ile Trp Phe Thr Ala Gln Arg Leu Lys Gln  
225                      230                      235                      240  
Gly Ile Ser Trp Ser Pro Glu Glu Ile Glu Asp Ala Arg Lys Lys Met  
                         245                      250                      255  
Phe Asn Thr Val Ile Gln Ser Val Pro Gln Pro Thr Ile Thr Val Leu  
                         260                      265                      270  
Asn Thr Pro Leu Val Ala Ser Ala Gly Asn Val Gln His Leu Ile Gln  
                         275                      280                      285  
Ala Ala Leu Pro Gly His Ala Val Gly Gln Pro Glu Gly Thr Ala Gly  
                         290                      295                      300

Gly Leu Leu Val Thr Gln Pro Leu Met Ala Asn Gly Leu Gln Ala Ser  
305 310 315 320  
Ser Ser Ser Leu Pro Leu Thr Thr Ala Ser Val Pro Lys Pro Thr Ala  
325 330 335  
Ala Pro Ile Asn Thr Val Cys Ser Asn Thr Thr Ser Ala Val Lys Val  
340 345 350  
Val Asn Ala Ala Gln Ser Leu Leu Thr Ala Cys Pro Ser Ile Thr Ser  
355 360 365  
Gln Ala Phe Leu Asp Ala Asn Ile Tyr Lys Asn Lys Lys Ser His Glu  
370 375 380  
Gln Leu Ser Ala Leu Lys Gly Ser Phe Cys Arg Asn Gln Phe Pro Gly  
385 390 395 400  
Gln Ser Glu Val Glu His Leu Thr Lys Val Thr Gly Leu Ser Thr Arg  
405 410 415  
Glu Val Arg Lys Trp Phe Ser Asp Arg Arg Tyr His Cys Arg Asn Leu  
420 425 430  
Lys Gly Thr Arg Ala Met Val Pro Gly Glu His Gly Ser Val Leu Ile  
435 440 445  
Asp Ser Val Pro Glu Val Pro Phe Pro Leu Ser Ser Lys Val Pro Glu  
450 455 460  
Val Pro Cys Val Pro Thr Ala Thr Ser Leu Val Ser His Pro Ala Thr  
465 470 475 480  
Lys Arg Gln Ser Trp His Gln Thr Pro Asp Phe Thr Pro Thr Lys Tyr  
485 490 495  
Lys Glu Arg Ala Pro Glu Gln Leu Arg Val Leu Glu Ser Ser Phe Ala  
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<210> 28

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ccgggaattc acctttgtat gcagtgggtg

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